AMENDMENTS TO THE CLAIMS

Claims 1 to 7 (Canceled).

8 (Currently Amended). A ~~device for association with~~ system for treating a tissue region at or near a sphincter comprising

an electrode structure ~~which, in use, is deployed in a tissue region, the device~~ comprising a plurality of tissue-piercing energy delivery devices for forming a lesion pattern in submucosal tissue at or near the sphincter,

a housing,

a generator integrated in the housing to generate energy capable of heating tissue and adapted to be coupled to the electrode structure to apply the energy to the tissue region,

a pumping mechanism integrated in the housing and adapted to be attached to tubing to dispense cooling fluid from a source to the tissue region,

a controller integrated in the housing and coupled to the generator and the pumping mechanism, to enable control of the generator in supplying energy to the electrode structure to raise tissue temperature in the tissue region, in concert with operation of the pumping mechanism in supplying cooling fluid to the tissue region to control the tissue temperature, and

a user interface including command inputs coupled to the controller, the command inputs including at least one generator control input for receiving from an operator an input affecting operation of the generator and at least one pump control input for receiving from an operator an input affecting operation of the pumping mechanism, the user interface including a first visual image displayed in association with the generator control input and a second visual image displayed in association with the pump control input, the first visual image being different than the second visual image, the first visual image further including a first visual indication of a tissue temperature condition adjacent each of the plurality of tissue-piercing energy delivery devices as energy is supplied to the electrode structure and, simultaneous with the first visual indication, a second visual indication of a running time condition reflecting a time period elapsed and/or remaining for supplying energy to the electrode structure relative to a targeted treatment period.

9 (Currently Amended). A ~~device~~ system according to claim 8, wherein the generator generates radio-frequency energy.

10 (Currently Amended). A ~~device~~ system according to claim 8, wherein the first visual image comprises an icon.

11 (Currently Amended). A ~~device~~ system according to claim 8, wherein the first ~~visual image~~ visual indication comprises an idealized image of the electrode structure.

12 (Canceled).

13 (Currently Amended). A ~~device~~ system according to claim 11, wherein the idealized image includes an indication of contact between the electrode structure and tissue in the tissue region.

14 (Currently Amended). A ~~device~~ system according to claim 11, wherein the idealized image includes an indication of electrical impedance adjacent the electrode structure.

15 (Currently Amended). A ~~device~~ system according to claim 8, wherein the second image comprises an icon.

16 (Currently Amended). A ~~device~~ system according to claim 8, wherein the second image comprises an idealized image of a fluid dispensing element.

17 (Currently Amended). A ~~device~~ system according to claim 16, wherein the fluid dispensing element comprises a faucet.

18 (Currently Amended). A ~~device~~ system according to claim 8, wherein the controller includes a control function that governs reuse of the electrode structure.

19 (Currently Amended). A ~~device~~ system according to claim 8, wherein the controller includes a control function that controls delivery of energy based, at least in part, upon a sensed tissue temperature condition.

20 (Currently Amended). A ~~device~~ system according to claim 8, wherein the controller includes a control function that controls delivery of energy based, at least in part, upon a sensed electrical impedance condition.

21 (Canceled).

22 (Currently Amended). A system according to claim ~~21~~ 8, wherein the electrode structure includes at least one port communicating with the tubing to dispense cooling fluid from the source to the tissue region.

23 (Currently Amended). A method of treating a tissue at or near a sphincter ~~using~~ comprising providing a ~~device~~ system as defined in claim 8, deploying the electrode structure in a tissue region at or near the sphincter, and operating the generator and the

pumping mechanism to supply energy to the electrode structure to raise tissue temperature in the tissue region, in concert with operation of the pumping mechanism to supply cooling fluid to the tissue region to control the tissue temperature based, at least in part, upon observing the first and second visual images.

24 (Currently Amended). A method of treating a dysfunction in the upper gastrointestinal tract ~~using the device~~ comprising providing a system as defined in claim 8, deploying the electrode structure in a tissue region in the upper gastrointestinal tract, and operating the generator and the pumping mechanism to supply energy to the electrode structure to raise tissue temperature in the tissue region, in concert with operation of the pumping mechanism to supply cooling fluid to the tissue region to control the tissue temperature based, at least in part, by observing the first and second visual images.

25 (Previously Presented). A method according to claim 24, wherein the dysfunction includes gastro-esophageal reflux disease.

26 (Currently Amended). A method of treating a dysfunction in the lower gastrointestinal tract ~~using the device~~ comprising providing a system as defined in claim 8, deploying the electrode structure in a tissue region in the lower gastrointestinal tract, and operating the generator and the pumping mechanism to supply energy to the electrode structure to raise tissue temperature in the tissue region, in concert with operation of the pumping mechanism to supply cooling fluid to the tissue region to control the tissue temperature based, at least in part, by observing the first and second visual images.

27 (Previously Presented). A method according to claim 26, wherein the dysfunction includes fecal incontinence.

28 (Currently Amended). A method of treating a hemorrhoid ~~using the device~~ comprising providing a system as defined in claim 8, deploying the electrode structure in a tissue region at or near a hemorrhoid, and operating the generator and the pumping mechanism to supply energy to the electrode structure to raise tissue temperature in the tissue region, in concert with operation of the pumping mechanism to supply cooling fluid to the tissue region to control the tissue temperature based, at least in part, by observing the first and second visual images.

29 (Currently Amended). A method of treating urinary incontinence ~~using the device~~ comprising providing a system as defined in claim 8, deploying the electrode structure in a tissue region, and operating the generator and the pumping mechanism to supply energy

to the electrode structure to raise tissue temperature in the tissue region, in concert with operation of the pumping mechanism to supply cooling fluid to the tissue region to control the tissue temperature based, at least in part, by observing the first and second visual images.

30 to 36 (Cancelled).